

$x^2 - 5x + 6 = (x - 3)(x - 2)$

x^2	x	x	1
$-x$	-3	-2	6
$-x$	-3	-2	6
1	1	1	1

The diagram illustrates the area model for factoring the quadratic expression $x^2 - 5x + 4$. The top part shows the decomposition of the expression into four rectangles: a large red square (x^2), a red vertical rectangle (x), a blue horizontal rectangle ($-x$), and a small blue square (-1). The bottom part shows the same four rectangles arranged in a larger square, with the top-left corner labeled x^2 , the top-right corner labeled $-x$, and the bottom-left corner labeled x . The bottom-right corner is divided into four smaller squares, each labeled -1 , representing the constant term 4.

Diagram illustrating the factorization of $3x^2 + x - 2$ using algebra tiles. The top row shows the tiles for $3x^2 + x - 2$: three x^2 tiles, one x tile, and one -1 tile. The bottom row shows the tiles for $(3x - 2)(x + 1)$: three x^2 tiles, one x tile, and one -1 tile. A red box highlights the x and -1 tiles, which are labeled f .